

Name: _____

Date: _____

FOIL when $A \neq 1$ solution (version 19)

FOIL the expressions shown below:

1. $(-7x - 4)(6x + 3)$

$$\begin{aligned} &(-7)(6)x^2 + (-7)(3)x + (-4)(6)x + (-4)(3) \\ &(-42)x^2 + (-21)x + (-24)x + (-12) \\ &-42x^2 - 45x - 12 \end{aligned}$$

2. $(-9x + 6)(8x + 8)$

$$\begin{aligned} &(-9)(8)x^2 + (-9)(8)x + (6)(8)x + (6)(8) \\ &(-72)x^2 + (-72)x + (48)x + (48) \\ &-72x^2 - 24x + 48 \end{aligned}$$

3. $(-2x - 2)(-6x - 6)$

$$\begin{aligned} &(-2)(-6)x^2 + (-2)(-6)x + (-2)(-6)x + (-2)(-6) \\ &(12)x^2 + (12)x + (12)x + (12) \\ &12x^2 + 24x + 12 \end{aligned}$$

4. $(-5x + 4)(4x + 5)$

$$\begin{aligned} &(-5)(4)x^2 + (-5)(5)x + (4)(4)x + (4)(5) \\ &(-20)x^2 + (-25)x + (16)x + (20) \\ &-20x^2 - 9x + 20 \end{aligned}$$

5. $(5x - 7)(-6x + 6)$

$$\begin{aligned} &(5)(-6)x^2 + (5)(6)x + (-7)(-6)x + (-7)(6) \\ &(-30)x^2 + (30)x + (42)x + (-42) \\ &-30x^2 + 72x - 42 \end{aligned}$$

FOIL the expressions shown below:

6. $(5x + 9)(-4x - 2)$

$$\begin{aligned} & (5)(-4)x^2 + (5)(-2)x + (9)(-4)x + (9)(-2) \\ & (-20)x^2 + (-10)x + (-36)x + (-18) \\ & -20x^2 - 46x - 18 \end{aligned}$$

7. $(-9x + 6)(-9x - 7)$

$$\begin{aligned} & (-9)(-9)x^2 + (-9)(-7)x + (6)(-9)x + (6)(-7) \\ & (81)x^2 + (63)x + (-54)x + (-42) \\ & 81x^2 + 9x - 42 \end{aligned}$$

8. $(2x + 7)(-7x + 3)$

$$\begin{aligned} & (2)(-7)x^2 + (2)(3)x + (7)(-7)x + (7)(3) \\ & (-14)x^2 + (6)x + (-49)x + (21) \\ & -14x^2 - 43x + 21 \end{aligned}$$

9. $(8x - 5)(9x - 6)$

$$\begin{aligned} & (8)(9)x^2 + (8)(-6)x + (-5)(9)x + (-5)(-6) \\ & (72)x^2 + (-48)x + (-45)x + (30) \\ & 72x^2 - 93x + 30 \end{aligned}$$

10. $(-2x - 7)(-7x + 7)$

$$\begin{aligned} & (-2)(-7)x^2 + (-2)(7)x + (-7)(-7)x + (-7)(7) \\ & (14)x^2 + (-14)x + (49)x + (-49) \\ & 14x^2 + 35x - 49 \end{aligned}$$